

CLAIMS

What is claimed is:

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1. A seal for a use in conjunction with an operating member of a dynamic assembly, comprising:

a graphite composition forming the seal; and

10 a plurality of abrasive particles incorporated into the graphite composition and positioned within the seal in a location suitable for removing adhering particles deposited on the operating member of the dynamic assembly.

2. The seal of claim 1, wherein the dynamic assembly comprises a valve.

15 3. The seal of claim 1, wherein the graphite composition comprises a laminate structure.

4. The seal of claim 1, wherein the graphite composition further comprises graphite combined with polytetrafluoroethylene.

20 5. The seal of claim 1, wherein the plurality of abrasive particles are adapted to remove the adhering particles while not substantially damaging a surface of the operating member.

25 6. The seal of claim 1, wherein the graphite composition is formed into the shape of a ring having an aperture sized to accommodate the operating member.

7. The seal of claim 1, wherein the plurality of abrasive particles are comprised of at least partially of at least one of MoO₃, SbO₃, Na₂SiO₃, and NaSO₄.

30 8. The seal of claim 1, wherein the seal comprises a laminate structure of graphite and PTFE, the PTFE further including the plurality of abrasive particles.

9. A packing arrangement disposed about an operating member of an assembly, the packing arrangement comprising:
a plurality of components;
5 wherein at least one of the plurality of components comprises a seal having a plurality of abrasive particles incorporated therein suitable for removing material adhering to the operating member.
10. The packing arrangement of claim 9, wherein the plurality of components further comprises a packing follower, at least one bushing, at least one anti-extrusion ring, and a plurality of washers.
11. The packing arrangement of claim 9, wherein the seal is formed of at least one of graphite and polytetrafluoroethylene.
- 15 12. The packing arrangement of claim 9, wherein the plurality of abrasive particles are adapted to remove material adhering to the operating member during normal assembly operation.
- 20 13. The packing arrangement of claim 9, wherein the material comprises a plurality of graphite particles.
14. The packing arrangement of claim 9, wherein the operating member further includes a surface coating thereon.
- 25 15. The packing arrangement of claim 14, wherein the surface coating is comprised of at least one of chrome and nickel.
16. The packing arrangement of claim 9, wherein the plurality of abrasive particles are selected to be suitable for removing the material while not substantially damaging a surface of the operating member.
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17. The packing arrangement of claim 9, wherein at least one of the plurality of components further comprises a plurality of abrasive particles incorporated therein and suitable for removing material adhering to the operating member.
- 5 18. The packing arrangement of claim 9, wherein the plurality of abrasive particles are comprised at least partially of at least one of MoO_3 , SbO_3 , Na_2SiO_3 , and NaSO_4 .
19. The packing arrangement of claim 9, wherein the assembly comprises a valve.
- 10 20. A packing arrangement disposed about an operating member, the packing arrangement comprising:
a plurality of components;
wherein at least one of the plurality of components comprises a plurality of
abrasive particles incorporated therein and suitable for removing a collection of material
15 on the operating member.
21. The packing arrangement of claim 20, wherein the plurality of abrasive particles are adapted to remove the material from the operating member during normal operation.
- 20 22. The packing arrangement of claim 20, wherein at least one of the plurality of components comprises a seal formed of a composition of graphite and abrasive particles.